APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/872,292	06/01/2001	Delmur R. Mayhak JR.	40134.1USU1	9208

23552   7590   01/09/2008
MERCHANT & GOULD PC
P.O. BOX 2903
MINNEAPOLIS, MN 55402-0903

EXAMINER
BOYCE, ANDRE D

ART UNIT	PAPER NUMBER
3623	

MAIL DATE	DELIVERY MODE
01/09/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

	Application No.	Applicant(s)
Office Action Summary	09/872,292	MAYHAK ET AL.
	Examiner	Art Unit	
	Andre Boyce	3623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>31 October 2007</u>.

2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,4,6-8,12 and 25* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,4,6-8,12 and 25* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1.   A request for continued examination under 37 CFR 1.114, including the fee set

forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this

application is eligible for continued examination under 37 CFR 1.114, and the fee set

forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action

has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on

October 31, 2007 has been entered.

2.   Claims 1, 4, 8, 12 and 25 have been amended. Claims 2, 3, 5, 9-11, 14, 16, 17,

19-24 and 26 have been canceled. Claims 1, 4, 6-8, 12 and 25 are pending.

Claim Rejections - 35 USC § 103

3.   The text of those sections of Title 35, U.S. Code not included in this action can

be found in a prior Office action.

4.   Claims 1, 6, 7, 12 and 25 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Hirsch et al (WO 97/25682), in view of Leamon (USPN

6,970,829).

As per claim 1, Hirsch et al disclose a method of scheduling a plurality of

patients and a plurality of employees in a health care environment (i.e., dedicated

management system that schedules and optimizes utilization of operating room suite

resources, pg 7, lines 26-29), wherein at least two patients receive treatment during

a predetermined time period (figure 12), said scheduling method comprising: for

each patient, evaluating patient care requirements (i.e., patient record including

proposed medical procedure, pg 15, lines 26-29), wherein the patient care

requirements correspond to actual employee time requirements necessary to satisfy

the patient care requirements (i.e., procedures listing screen, including average time,

figure 7) and evaluating employee time requirements necessary to satisfy non-

patient care activities (i.e., hospital policies such as proactive and reactive

emergency policies used as goals and constraints, pg 18, lines 28-30 and pg 19,

lines 1-3); displaying a plurality of patient schedules in relation to time to provide a

visual indication of the patient care requirements for each interval (figure 12); in

response to the patient care requirement evaluation and the non-patient care

requirement evaluation (i.e., various goals and constraints of the scheduling system,

pg 18, lines 28-30 and pg 19, lines 1-3), adjusting scheduling time throughout a

predetermined time period (i.e., cases which already exist for a particular day can

easily be rescheduled by dragging the line to a different calendar date, page 18,

lines 24-26), wherein the predetermined time period is a day (pg 14, line 10),

dividing the day into intervals, wherein each interval is less than an hour (i.e., time

interval in minutes, figure 1); in evaluating the patient care requirements,

determining the patient care requirements on a per-interval basis (i.e., system

preferences allow a surgeon to select a time interval for starting a procedure, pg 15,

lines 21-23 and calculation of average time to perform a procedure, pg 16, lines 25-

27); and scheduling employees in response to the distributed employee time

requirements (i.e., surgeon selects time interval for starting procedure, while

providing the scheduling system sufficient latitude to optimize the resulting schedule,

pg 15, lines 21-23), and displaying employee shift information in relation to time to

provide a visual indication of scheduled employee information in relation to

scheduled patient information (figure 12).

Hirsch et al does not disclose (i) counting employees at a fractional number

based at least upon the employees' training resulting in scheduling employees in

non-whole number increments; and (ii) rounding up a total amount of employees

scheduled when a determination by the scheduling module results in a fractional

number of employees needed to address the needs of the plurality of patients.

Leamon discloses the net staff arrays provide, for each time interval to be

scheduled, the number of agents (usually a fractional amount) over (if positive) or

under (if negative) the total needed to cover all of or a portion of agent requirements

for that interval, and as scheduling proceeds, the net staff for a given interval may be

fractional, it may be negative if the interval is understaffed or positive if the interval is

already over-staffed (column 16, lines 51-58), including a net staff array associated

with minimum skill level (column 17, lines 1-13). Both Hirsch et al and Leamon are

concerned with effective employee scheduling, therefore it would have been obvious

to one having ordinary skill in the art at the time the invention was made to include

setting up staffing requirements in Hirsch et al, as seen in Leamon, thereby utilizing

the staff more effectively, thus improving the overall efficiency of the Hirsch et al

system.

As per claim 6, Hirsch et al disclose each employee has a predetermined

patient care capability (i.e., service title and procedures performed, figure 8) and

wherein the method further comprises scheduling employees in relation to patient

care capability (i.e., service code and role for a particular case/procedure, figure 1).

As per claim 7, Hirsch et al disclose the patient care capability relates to indirect

and direct patient care activities (i.e., pre-op information, figure 11).

As per claim 12, Hirsch et al disclose calculating a total value of employee time

for each interval; displaying the calculated employee values (i.e., estimated length of

scheduling, figure 11), and comparing patient requirement values and employee

values for each interval to determine efficiency (i.e., scheduling via the system to

increase utilization rate, based upon scheduling of staff, pg 20, lines 5-10).

As per claim 25, Hirsch et al disclose displaying a patient schedule information

in a patient schedule portion (i.e., patient input screen, figure 2), the patient schedule

portion logically divided into intervals and displaying patient schedule information

related to the intervals (i.e., patient procedure schedule, figure 12); displaying

employee schedule information in an employee schedule portion logically divided

into intervals, wherein the intervals for the patient schedule portion correspond to the

intervals for the employee information portion (i.e., time slot preferences, figure 1);

calculating temporary and permanent patient care requirements and employee

capabilities; and a calculation display area for displaying calculated values within

each interval, the calculated values relating to temporary or permanent patient care

requirements and employee capabilities for each interval (i.e., calculation of average

time to perform a procedure, pg 16, lines 25-27 and average time of an average surgeon to complete procedure, pg 16, lines 25-27) based on the employee's direct care, indirect care and non-patient care tasks during the time interval (i.e., optimization factors and constraints including an interaction factor among surgeons, patients, anesthesiologists, CRNAs, RNs, Techs, etc., thus including both direct and indirect care tasks, page 11, lines 12-15 and hospital policies such as proactive and reactive emergency policies, pg 19, lines 1-3), whereby the calculation display area provides efficiency information (figure 14).

5.   Claims 4 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirsch et al (WO 97/25682), in view of Leamon (USPN 6,970,829), as applied to claim 1, in further view of Rosse (USPN 6,640,212).

As per claim 4, Hirsch et al disclose a plurality of job types for an employee are predetermined (i.e., staff record, figure 8), each job type having a different patient care capability value associated (i.e., service code and roles, including hierarchy #, figure 1) and wherein the method further comprises: scheduling shifts of employees based on job type; scheduling employees based on scheduled job type (i.e., feasible schedules determined by the system, figure 13). Neither Hirsch et al nor Leamon explicitly disclose the patient care capability value is averaged over an entire shift. Rosse discloses assigning staff schedules, wherein the selected staff for a specific assignment includes the percent of shift assigned (i.e., the capability of assigned staff over entire shift, figure 15). Both Hirsch et al and Rosse are concerned with

healthcare management, therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to include patient care capability value is averaged over an entire shift in Hirsch et al, as seen in Rosse, as an effective means of determining the availability of the staff member in terms of percent of shift assigned, thus making the Hirsch et al system more efficient in determining surgeon availability.

As per claim 8, Neither Hirsch et al nor Leamon explicitly disclose each employee further has a predetermined non-patient care capability relating to performing non-patient care activities, and wherein the method further comprises: calculating a staff efficiency valued based on scheduled activities, wherein the activities relate to patient care and non-patient care activities, and displaying the staff efficiency value. Rosse discloses non-client duties that do not involve patient participation (column 8, lines 11-14). Further, Rosse discloses the percent of shift assigned, which includes both client and non-client duties (figure 15). Both Hirsch et al and Rosse are concerned with healthcare management, therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to include calculating a staff efficiency value based on scheduled activities, wherein the activities relate to patient care and non-patient care activities in Hirsch et al, as seen in Rosse, as an effective means of determining the efficiency of the staff members in terms of percent of shift assigned, thus making the Hirsch et al system more effective in determining surgeon availability during a shift.

Response to Arguments

6.   In the Remarks, Applicant argues that Hirsch et al does not disclose counting employees at a fractional number based at least upon the employees' training resulting in scheduling employees in non-whole number increments; and rounding up a total amount of employees scheduled when a determination by the scheduling module results in a fractional number of employees needed to address the needs of the plurality of patients. The Examiner submits that Leamon discloses the amended limitations, as seen in the above rejection.

Conclusion

7.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

    -Kintner et al (USPN 6732079) disclose determining the best mix of regular and contract employees.

    -Bucci et al (USPN 6823315) disclose dynamically scheduling a workforce.

    -Crockett et al (USPN 6044355) disclose scheduling personnel in a work environment.

8.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andre Boyce whose telephone number is (571) 272-6726. The examiner can normally be reached on 9:30-6pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz can be reached on (571) 272-6729. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

adb
January 5, 2008

ANDRE BOYCE
PATENT EXAMINER
A.U. 3623